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Japan Report

HITACHI'S CORPORATE STRATEGY EXAMINED

(FOUO 46/82)

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HITACHI'S CORPORATE STRATEGY EXAMINED

Personnel Strategy

Tokyo ZAIKAI TEMBO in Japanese Jun 82 pp 47-66

[Report by Economic Journalist Setsuo Mito]

[Excerpt] Hitachi Ltd is a representative international enterprise of Japan whose growth has reached the point where it boasts that "General Electric is our rival." Under the slogan "Hitachi for Technology," it promotes total efficiency in management and prides itself on its superior financial management. But does Hitachi merit a superlative rating as an "ideal enterprise?" Our special team of reporters will attempt to analyze the facts concerning Hitachi's type of business management.

"The Man" of Hitachi Ltd; Dedicated to Nurturing Human Resources in Private Sector

Namihei Kodaira (1874-1951), founder of Hitachi for his "nobushi" [soldiers of fortune], devoted his entire life to the development of domestic technology of Japanese origin. The early Hitachi enterprise was born in an abandoned mining site, overgrown with grass, where Kodaira led a macho existence as boss of the "nobushi."

His ideals were grandiose and his achievements were solid. He gathered around him men of similar aspirations on the backwoods site and was determined to succeed someday in training a group of technicians who could acquire and practice world-class science and technology.

The boss of the "nobushi," Namihei Kodaira, had a dream. When he was a student in the electrical engineering department of Tokyo University (in 1898), he wrote in his yearend notes as follows: "I have traveled this year to various plants and factories, and have been perturbed by the immaturity of Japan's industrial technology. I have also read foreign magazines and been amazed by the advanced industrial standards in Europe and America. When I graduate and enter society, I do not intend to become the keeper of a small electrical firm. If my country's industries are not

flourishing, it is my duty to make them flourish. I feel strongly that I am not destined to spend my life as a company keeper. As for achieving my purpose in life, I would sacrifice everything to be able to travel to America and seek employment in a major electrical firm there. I would endeavor to overcome any hardships and plant my feet there, resolved if necessary to spend my entire life there in order to succeed in my profession. This is the plan I have formed in my mind this year. In effect, I have been disillusioned with Japan and have begun to entertain a desire to use my talents on the world stage." [See Kenichi Iida's "Pioneers of Technological Philosophy"]

The boss of the "nobushi" was a romantic at heart. And as a member of society, he was also a rare realist who laid one brick on top of another in order to achieve his dream in building the foundation for Hitachi Ltd.

Namihei Kodaira, the founder of Hitachi, was a romantic and a realist. This is an indispensable factor in gaining worldwide success in an industry where workers are trained and their talents applied.

Namihei Kodaira made the development of independent technology by the Japanese his lifework. He secured the location in order to realize his goal and above all concentrated his efforts in fostering the most important human resources. Kodaira was himself an excellent technician and scientist, but from the moment he began to repair electrical mining machinery in a corner of the fledgling Hitachi Mining Company in 1908, he became an organizer and provided guidance to younger men, striving to create a work environment with suitable conditions. Despite his modest means, he never hesitated to obtain the latest information the world had to offer. He constantly educated his subordinates concerning the facts of science and technology, which constitute the base of modern industry. He promoted rationalization of the production shop and did not forget to foster talent for research and development.

Namihei Kodaira was a great producer of men of strong individuality at Hitachi.

It is difficult to believe that Kodaira, who had aspired to studying in America, died without once setting foot in Europe or America. But his unchanging credo was: "Rather than go myself, use the money to let younger men study abroad." If he were an artist or a composer, it might have sufficed for him merely to arrive in the West, regardless of the hardships he might have encountered en route. But as an industrialist in charge of an enterprise, he was not in a position to do so. Faced with the realities of the business, he had no alternative than to relinquish to his subordinates any such opportunity, and to stay behind to cultivate human resources for the future. The Hitachi for the "nobushi" became a training school for men of talent.

Kodaira's Dream and Mita's Realism

Was Namihei Kodaira, working in the private sector to cultivate human talent and applying himself to the development of independent technology in a spirit of freedom and determination, a stubborn and inflexible person? He was not. He was at heart a romantic, as we have already pointed out.

Kodaira also had a sense of humor. In his later years he reportedly referred to the Agriculture and Commercial Department as the "Amazing and Perplexing Department." [a play on Japanese Pronunciation]

To Kodaira, who steadfastly pursued his grand purpose in the fields and hills of Hitachi outside of Tokyo, this was his view of the bureaucracy, where there is a wide discrepancy between "intent" and "reality." There was a basic difference between the bureaucracy and the private sector in the cultivation of men and the application of talent. A bright college graduate could enter the rigid bureaucracy and exercise immediate authority, but in the private sector he could not advance, nor could he survive, without constructively destroying such influence. Kodaira's cultivation of men was truly based on a spirit of "freedom and self-reflection" as a member of the private sector.

We shall now turn our attention from Namihei Kodaira, the founder, to Katsushige Mita, the present boss of Hitachi.

Katsushige Mita is the fifth president of Hitachi. He assumed the position of company president in June 1981, after Chikara Kurata, Kenichiro Komai, and Hirokichi Yoshiyama, in that order.

Ironically, the new boss of Hitachi--the most typical private enterprise located in a rural setting--had aspired as a young man to enter the Ministry of International Trade and Industry (MITI), which was the object of Kodaira's pun. It is surprising that Katsushige Mita, who like Kodaira studied in the electrical engineering department of Tokyo University, should have dreamed of becoming a bureaucrat who oversees the private sector. In a different sense, however, it might have been a greater challenge for him to be involved in the development of a new economic system from the macro standpoint of determining the direction of Japan's industry, rather than unobtrusively building his own "castle" in the micro world of the private sector. Moreover, in 1949, when Mita entered society, Japan was struggling to find a new direction amid the postwar confusion. The "Dodge storm" determined Japan's economic stabilization policy in the midst of poverty conditions, and the unified exchange rate was 360 yen to the dollar.

That spring, Katsushige Mita tried to become an MITI bureaucrat and failed. He also applied for employment in a general trading company and again was rejected, so he became an engineer at Hitachi. It is a testimony to the development of a going concern that Katsushige Mita as a Hitachi employee was able to fulfill the dream of Namihei Kodaira, who once wrote: "I would

sacrifice everything to be able to travel to America, to seek employment with a major electrical engineering firm, and strive to overcome every hardship to set down my roots there."

Importance of Keeping Half a Step Ahead

In 1958, Katsushige Mita began his apprenticeship at General Electric in the United States. He lived for 8 months in Schenectady, where GE was founded. For Mita, who saw the America of a blessed era--in the 1950's when it was powerful, full of confidence, and the undisputed leader of the world--it was an original experience which perhaps determined his way of life as a businessman.

In any era, it is important to have experience, which puts one even half a step ahead of the others.

Soichiro Honda went to America in early 1950 and closely observed the modern, industrialized society there. In early 1951, Konosuke Matsushita flew to America on a fact-finding tour and received his inspiration for a future in electronics. Both obtained experience a half step ahead of others, and this had a tremendous impact on their respective organizations.

In any transitional period, early experience stirs the imagination of those who would challenge the times, bringing their foresight into full play.

Such examples are plentiful throughout history.

In the great transitional period of the Meiji Restoration--the age of the topknot hairstyle--Yukichi Fukuzawa (1835-1901) sailed to America on Katsu Kaishu's ship the Kanrin Maru at the age of 25 in 1860). Eiichi Shibuzawa (1840-1931), who established the first stock corporation in Japan and helped to lay the foundation for capitalism, traveled to France as the Tokugawa Shogun's retainer at the age of 28 (1867).

Why did the early experiences of Yukichi Fukuzawa, Eiichi Shibuzawa, and more recently Soichiro Honda and Konosuke Matsushita, prove to be a plus in their activities? First of all, the opportunity to study abroad when not many had a chance to do so served to strengthen their determination. Their preparation, resolve, and sense of mission must have been equally strong.

Gaining experience ahead of the times undoubtedly proved to be an advantage in comparing the capabilities and characteristics of foreign countries and Japan.

The early travels of Soichiro Honda and Konosuke Matsushita must have proved to be as shocking an experience for them as it was for Yukichi Fukuzawa and Eiichi Shibuzawa. However, there is no doubt that, as industrialists, they were not intimidated by the conspicuous difference in the level of development. They calmly observed the situation, acted with composure to narrow the gap, and provided important direction.

During the same period that Soichiro Honda and Konosuke Matsushita sojourned in America--between 1950 and 1951--Eiji Toyoda (present president) and Shoichi Saito (former chairman) of Toyota Motors separately studied the Ford Company's production shop in Detroit. They utilized their rich experiences at the time to guide today's "Toyota production formula" to perfection.

Incidentally, what did 34-year-old engineer Katsushige Mita learn during his stay at General Electric? It is only natural, in view of the difference in the timing and in their positions, that what he learned was probably different qualitatively from what the two founding managers had learned. The latter two were desperately trying to close the gap between Japan and the United States, and they searched for a tangible formula. Soichiro Honda bought up high-precision machinery as long as his funds lasted, whereas Konosuke Matsushita had his eye on technological imports from advanced firms in America and Europe, and he signed an agreement with the Dutch Phillips Company in 1952 on cooperation with regard to capital.

Katsushige Mita's purpose in staying at General Electric was to study firsthand America's system engineering. At the time, Japan's electrical industry centered on heavy electrical machinery, and Mita, who was the switchboard design manager at the Kokubun plant, naturally studied the application of system engineering for heavy electrical machinery.

However, Mita's true forte appeared in another form. What stimulated him most at GE was its personnel strategy.

The training system at GE was not limited to company employees, but was extended widely to users at home and abroad. The company also instituted an ideal curriculum for members of society which provided reeducation in basic theory for employees with experience in actual production work. In an ideal era and in an environment, with the greatest emphasis on education of all American companies, Mita asked himself: "What is business education? What kind of education could a business enterprise offer?" He probably pondered further about the essence of education from the human viewpoint.

If one were to give high marks to Katsushige Mita, the fifth president of Hitachi, as an industrialist with a special concern for education, he would probably reply, "This is nothing to be surprised about. It is a well-known tradition at Hitachi."

Meets Challenge of Lasting Personnel Strategy

Four presidents successively led Hitachi Ltd after the war after Namihei Kodaira, the founder, was dismissed in 1947 by the GHQ directive purging public employees. The four have been: Chikara Kurata (1947-61), Kenichiro Komai (1961-71), Hirokichi Yoshiyama (1971-81), and Katsushige Mita (1981-present). The postwar purge of public employees resulted in a sweeping change of leadership, ranging from politicians and bureaucrats to artists. The so-called "third-class directors" (from a novel by Keita Genji) included

Shigeo Nagano, Toshiwo Doko, and Takeshi Sakurada, who are still active. This younger generation of managers, humbly aware of their lack of experience, faced a new age of upheaval, and their success in overcoming the challenge has been highly evaluated.

The unrelenting efforts of Chikara Kurata, one of the "third-class directors," is widely recognized as having largely contributed to the establishment of postwar Hitachi's operational base.

Chikara Kurata grappled head-on with major issues concerning wage hikes and reductions in force in 1947 and 1950, and he survived several postwar crises. Meanwhile, he emphasized "harmony among the employees" and "the sharing of knowledge" taught by Namihei Kodaira. He learned through unimaginable trials and tribulations how important it was to believe in man's sincerity and to reject tricks and ruses.

In 1961, when the Japanese economy entered an era of high growth, he relinquished his position as president to Kenichiro Komai. Thereafter, the term of office at Hitachi began to follow a pattern without any instruction by Chikara Kurata or any stipulation by his successor. Of course, neither was it based on any decision by any major stockholder.

A "10-year presidential term of office" was empirically and tacitly recognized. In order to enable a president to "do his best to accomplish his goals," it would require that many years. In order to fully exercise management strategy and survive in the free and competitive market through "complete preparation, detailed planning, and bold execution," a president would require imagination, conceptual ability, and foresight in exercising a decade of control at his will, as well as leadership to solidify and guide a group of individualists. At the same time, it would require a decade to cultivate a successor who would be qualified as pilot of the next-generation management. At Hitachi, it became customary to allow sufficient time for the selection of its leaders.

The secret of Hitachi's stable top management lies in the selection of its leaders, the deep and mutual trust between a successor and his predecessor, and the strong sense of duty felt by both.

The "10-year presidential term of office" at Hitachi is a decade with time to spare and a decade of rigorous pressure. Both Kenichiro Komai and Hirokichi Yoshiyama completed their terms of office after Chikara Kurata. Of course, if they lacked ability as president, they would have been compelled to step down before their time expired. Even Katsushige Mita, who has passed his first anniversary as president, is not guaranteed 10 years in office. It is up to his ability and endeavor.

The terms of office of the four presidents at Hitachi were mentioned before. Their sense of duty in fulfilling their respective terms with achievement and their trust of their employees constitute the chief traits and strengths of Hitachi management.

For example, if we look at the succession of presidents at their rival company, Toshiba, during the same period, Toshiba had eight presidents: Toyoharu Tsumori, Hirosaku Shinkai, Taizo Ishizaka, Fumio Iwashita, Shigeo Doko, Keizo Tamachi, Tsugio Iwata, and Shoichi Saba. At Hitachi there were only five, including Namihei Kodaira. In addition, the top personnel showed contrasting traits. While the Hitachi leaders have strived for stability under their own power, a confused situation existed at Toshiba, with a repetition of reconstruction through the hiring of "imported" leaders.

Major labor disputes occurred during the late 1940's and early 1950's at both Hitachi and Toshiba. At Hitachi, Chikara Kurata survived by laying his job on the line, while at Toshiba, Taizo Ishizaka (of Daiichi Insurance Co) was brought in as troubleshooter. Also, when economic difficulties arose in 1964 and 1965, Hitachi surmounted them through a joint effort by Chairman Chikara Kurata and President Kenichiro Komai, while Toshiba brought in Toshiwo Doko (Ishikawajima-Harima Heavy Industries). It is also well known that during this period Matsushita Electric survived the crisis by having Chairman Konosuke Matsushita himself taking charge as acting managing director. These facts indicate the more solid type of management at Hitachi. Although regarded as conservative and lacking in color, it has the most orthodox style.

What is at the base of Hitachi's management? As the "10-year presidential term of office" symbolizes, it is probably the philosophy that a minimum of 10 years is required to bring out a leader's capabilities and enable him to demonstrate them; that it would require a decade for the president himself to fully utilize his rich experience and humanism; and that it would take a decade to cultivate his successor. Additionally, top management must be prepared to reform and restructure the business organization with 10 years as a cycle.

Especially in the case of Hitachi, the management approach of the successors who inherited Namihei Kodaira's basic ideas on "development of independent technology" and "acquisition of science and technology" had to be bold and detailed. In order to achieve their objectives, they had to return to the motto of "the enterprise depends on the man."

Production Shop Is Starting Point of Science and Technology

Chikara Kurata, who rose from president to chairman in 1961, became a consultant in 1957 and retired from the front line. His severance pay after 55 years with Hitachi was 200 million yen. Kurata donated the entire sum to the "Society for the Promotion of Japanese Technology" as a scholarship fund, hoping to see the birth of young and promising researchers.

What was Kurata's outlook on life and the business enterprise after 55 years with Hitachi?

"Although I was engaged in what might be, in a sense, an extremely narrow field of industrial economy, I cannot forget about independent economy. It

was my fortune to spend my life career at Hitachi, where the goal has been to build an industrial nation through research and the development of homegrown technolgoy initiated by the deceased and venerable Mr Kodaira.

One of the primary purposes of my 55 years in the shop was, of course, to discover ways of promoting science and technology. After I was appointed company representative in 1947, my ambition grew stronger. I decided that in order to survive the upheaval of the global technological revolution and to come out ahead in free competition with other nations, the raising of the level of Japan's science and technology in conjunction with a strong economy was vital not only for a single enterprise but also for the improvement of national life in general. I therefore advocated my ideas at every opportunity. As a result, I received frequent criticism to the effect that "life is not just technology" or "this is not what management is about." I offered little explanation in answer to such criticism. At the time, there seemed to be a common tendency to leave things up to others 'without thinking, without suffering,' and I felt that the only answer was to act and execute. Of course, I have never thought of boasting about my accomplishments or making them public. Nor have I thought about them in that light. The only thing I can boast of is that I have persevered toward the attainment of my goals and walked straight ahead in earnestness." ("A Life Full of Flaws"--1969)

In reality, Chikara Kurata's great objective of promoting science and technology turned out to constitute spending endless days in the production ship, managing with limited funds, and manufacturing machinery, equipment, and products with his own ingenuity.

Namihei Kodaira's development of independent technology of Japanese origin is aptly described by Naosaburo Takao, Kodaira's right-hand man.

"In my opinion, technological ability is most important in the production of electrical machinery and appliances, and most of the money involved goes to research, technical expenses, and the cost of experience. Therefore, such production is extremely difficult. When machinery is manufactured by technology purchased from a major foreign company through a joint venture, it cannot be considered purely domestic production, although the materials or wages may be of Japanese origin. Here at Hitachi, our purpose, beginning in 1925, is to develop independently the most difficult electrical machinery for the sake of Japanese pride, to endure all hardships, to directly obtain experience and perform research with a sense of awareness, and to enter serious competition. I do not think there has evern been such an interesting and challenging year." ["History of Hitachi, I" in HITACHI HYORON, 1925, Vol 8, No 1 issue]

One could visualize the fierce air of determination among the "nobushi" of Hitachi led by Namihei Kodaira.

It goes without saying that the basic philosophy of postwar Hitachi management always embraced the development of independent technology. Of course, this did not mean the total rejection of foreign technology. Foreign

technology was imported occasionally--for example, the cooperation with RCA and GE--but basically, and for the system as a whole, the "Hitachi spirit" of creating an original and independent technology by Hitachi people was never forgotten. Therein could be found the underlying power of Hitachi's management.

Today, 20 years after Chikara Kurata set the goal of a 3-percent investment in research and development, R&D costs at Hitachi, with its sales volume of 2 trillion yen, amount to 6 percent, with prospects of a further increase. There evidently has been a reversal in real substance compared to Western nations, while the technological revolution involving electronics and other areas shows no signs of ending.

Primacy of Planning Strategy

Katsushige Mita stated his position at a roundtable conference held at the beginning of this year (sponsored by the Electronic Industries Association of Japan and attended by Sadakazu Shindo, Tadahiro Sekimoto, Shoichi Saba, and Toshio Takai), as follows: "GE, which is a general manufacturer, gave up computers and semiconductors around 1970 because its management is profit-oriented. Eleven years ago, it didn't foresee the present growth of the electronics industry. With a view to making a new start in this field, it is now buying up semiconductor companies and design automation companies.

We have never departed from this field. It was probably rough sailing at the beginning. That is, the general manufacturer has its peculiar weaknesses and characteristics, and one weakness is that we cannot concentrate our workers like the specializing manufacturer in one production category. We cannot avoid being generalized. Therefore we had a rough beginning. However, at this juncture our electronics technology is not limited to semiconductors and computers but evolves in many directions, so that products which were considered outdated are being transformed into new products.

We therefore expect to improve our status in the future. Nonetheless, since we are involved in numerous project areas, we cannot afford to concentrate our workers and funds in a particular category and ignore the other categories. Our problem is to guide the other categories without hurting the morale of the employees."

Accuracy of Katsushige Mita's Diagnosis

Led after Chikara Kurata by Kenichiro Komai, Hirokichi Yoshiyama, and Katsushige Mita amid the epochal progress of the technological revolution and the market revolution (globalization and segmentation), Hitachi management has stressed the development of independent technology and the production shop, planning a multiple effect in management strategy.

If we look at Kenichiro Komai's management skill in raising the capital turnover rate to improve the overall capital profit rate, or the total

rationalization of management planned by Hirokichi Yoshiyama in coping with the Nixon shock and the initial oil crisis--the so-called "reduced scale management"--they all required thoughtful and farsighted management strategy.

In any case, true management strategy is possible only through an accurate grasp of marketing news. This would be one weakness if any, at Hitachi, and Katsushige Mita has pointed this out.

The trinity of "harmony," "sincerity," and "pioneer spirit" which constitutes the Hitachi spirit is strengthened and perfected in combination with an insatiable thirst for social news, consumer news, and business news.

Performance of Subsidiaries

Tokyo ZAIKAI TEMBO in Japanese Jun 82 pp 67-82

[Report by Mitsuru Notani and Yasunori Tateishi]

Sales Outstrip Parent Company

Japan's top three makers of heavy electrical machinery are Hitachi, Tokyo Shibaura Electric [Toshiba], and Mitsubishi Electric Corporation. Of the three, Hitachi is by far the leader, with Toshiba and Mitsubishi Electric comprising the second group at a much lower level.

Toshiba, which outstripped Hitachi in sales and profits in its March 1980 account, recently has been proclaiming its "pursuit of Hitachi." However, it is probably more correct to interpret it as a tactic to boost its internal morale. Although it did improve its profits by cutting down its operations when it transferred its deficit-ridden sales division for major electric computers to the Nichiden-Toshiba Information System, that alone would not suffice to overtake powerful Hitachi.

The reason is that Hitachi is far ahead of Toshiba in current profits due to the large gap in financial balance accounts. There has always been a considerable gap between Hitachi and Toshiba in earning power, and it would be very difficult for the latter to catch up in real terms. The difference becomes more decisive when the profitability of their respective enterprise groups is compared.

The Hitachi-affiliated companies are far ahead of their competitors, resulting in the overwhelming strength of the Hitachi group as a whole.

Let us look first at the size of the Hitachi group. At the end of March 1981, a total of 531 companies, including 47 chain subsidiaries and 484 affiliated companies, under the parent holding company were listed in the consolidated closing account. Compared to Toshiba's 303 companies and Mitsubishi Electric's 90 companies, one can visualize the large size of the Hitachi group. As for the percentage of sales by the chain subsidiaries in relation to total group sales, Hitachi shows 73 percent, while Toshiba shows 36 percent and Mitsubishi Electric only 10 percent. These indices alone indicate the significant role of chain subsidiaries in the Hitachi group.

The March 1981 consolidated closing account showed 3,359.2 billion yen in sales (Hitachi parent company: 1,947 billion yen), 304.1 billion yen in current profits (ditto: 1,17.7 billion yen) and 129.1 billion yen in net profit (ditto: 61.8 billion yen). Incidentally, in March 1978, sales were 2,377 billion yen (parent company: 1,388.6 billion yen), current profits were 177.2 billion yen (ditto: 65.4 billion yen), and net profits were 77.8 billion yen (ditto: 31.4 billion yen).

As for the profit contribution rate of the chain subsidiaries, it was overwhelmingly higher in March 1978 and lower in March 1981.

This was the result of the parent company's higher profit growth rate, however, rather than a decline in the profit growth rate of the subsidiaries.

The profit growth during this period greatly outstripped the sales growth of both the parent company and its subsidiaries. Compared to March 1978, sales in March 1981 increased by 40 percent for Hitachi and 43 percent for its subsidiaries. Current profits increased by 80 percent and 67 percent, respectively, and net profits increased by 97 percent and 45 percent, respectively.

The main reasons for the low growth rate of net profits for the chain subsidiaries were: first, the public subscription offer of shares held by the subsidiaries resulted in a lower proportion of shares held by the parent company; and, second, the tax rate increased. However, the real profit rate rose considerably higher, as shown by current profits.

The characteristic of the Hitachi subsidiaries is, above all, the large number of enterprises with high earnings. Looking at enterprises listed on the stock exchange alone, chain subsidiaries like Hitachi Maxell, Hitachi Credit, Nissei Sangyo, Hitachi Electronics, Japan Servo, Hitachi Home Appliance Sales, Hitachi Plant Construction, Hitachi Metals, Hitachi Cable, Hitachi Machine and Electric Industries, and Hitachi Chemical are all outstanding enterprises with high earnings.

There are also numerous subsidiaries under the parent holding company which are recording high earnings.

A recent major change among the subsidiaries is that, in response to the Hitachi parent company, which has posted achievements in advanced branches of electronics such as computers, semiconductors, VTRs and robots as well as in mechatronics, these enterprises are growing rapidly as they share a larger role in the growth of the parent company in those categories.

Representative subsidiaries are: Hitachi Maxell, which is expanding rapidly in the production of VTR tapes and floppy disks; Nissei Sangyo, which is making progress in semiconductors, computers, and physical chemical machines and instruments; and Hitachi Credit in the credit field. They are the so-called "Three New Pillars of the Hitachi Family," replacing Hitachi Metals, Hitachi Cable, and Hitachi Chemical, which had a high reputation inside and outside the group.

Although all Hitachi subsidiaries are considered outstanding enterprises with high earnings, the trend among the subsidiaries under the parent holdings company is attracting special attention.

The profits of the minority shareholders included in Hitachi's consolidated net profits totaled 22.2 billion yen as of March 1981. They were 8.9 billion yen in 1978, which means a 2.5-fold growth. The ratio to consolidated net profits was only 11 percent in March 1978, but it rose to 17 percent in March 1981, indicating a drastic increase in the earning power of the holding company subsidiaries. In this category, the robot-producing Shin Meiwa Industry and Tokico, and the semiconductor-related Kokusai Electric are some of the fast growing companies.

One of the reasons for the large number of affiliated companies with high earnings equaling the parent company's is the hardnosed management policy. Although 531 companies are listed as chain subsidiaries ("keiretsu kaisha"), including holding company subsidiaries, only one had a deficit in March 1981, which is proof of their excellent business management.

Another factor for high earnings is the quick response to trends in demand, and a mobile and flexible organization which is receptive to changes in business makeup. The recent trend is to evolve group strategy for full conversion to electronics and mechatronics.

Instillation of Hitachi Spirit a Source of High Earnings

Why are there so many outstanding Hitachi subsidaries with high earnings, and why is the level of the Hitachi group as a whole so high that there is virtually no subsidiary with a deficit, despite the large family of 531 companies? A major factor probably is Hitachi's posture toward its subsidiaries.

When the consolidated closing account system was introduced in 1978, many enterprises preferred to adopt the method of consolidated settlement, which is not affected by the holding company subsidiary law. Thus they gave a better appearance to their business by decreasing to less than 50 percent the share ratio of enterprises with less favorable records. In other words, they tried to "put a lid on anything that had a foul smell." But Hitachi took a different approach.

Hitachi has actively adopted the consolidated closing account system. Its strategy is to focus on the management record of the Hitachi group as a whole, to look for problems if any, and to improve the weaknesses in order to build overall strength.

In 1960, Hitachi had already introduced the consolidated formula. It did not simply introduce it because the formula was there or because the other enterprises were adopting it. Nor did it try to improve appearances of profitability or hide the existence of subsidiaries with bad earning records by removing them from the account. They adopted a positive approach by improving the related enterprises through the consolidated account and by seeking growth as a group.

Additionally, the parent Hitachi actively sends its talented people to the subsidiaries. They do not, as many enterprises do, send people who are castoffs of the parent company. In fact, capable people in their prime are sent to the subsidiaries. At the same time, the purpose is to train these people. If they build a good record in the subsidiary, they are permitted to return to the parent company, but they must remain with the subsidiary if their record is bad. As a result, the subsidiary company naturally puts great efforts into its operations.

There are three types of Hitachi subsidiaries: former Hitachi divisions which have become independent companies; new divisions established as independent enterprises; and existing enterprises which were purchased under capital participation. The special trait of Hitachi's strategy concerning its subsidiaries is the separation and independence of its strongest operational divisions.

It is general practice for companies to release its stagnant divisions in order to strengthen the management of the parent company, or to absorb outstanding subsidiaries. There are few companies where superior divisions are actually separated to form new subsidiaries. In Hitachi's case, the purpose is to accentuate the nature of the business through independence and to give it a completely autonomous management. Because it is difficult for the large Hitachi group to function with mobility, the various enterprises are allowed to specialize with separate personnel and capital, and to operate independently.

The basic concepts of Hitachi's policy regarding its subsidiaries are: to provide completely independent management to each business category, to establish an optimum management system, and to secure mobility in management and strengthen overall management.

Representative subsidiaries which have become independent are: the metal and cable divisions, which made a new start in 1956 as Hitachi Metals and Hitachi Cable, and the chemical products division which became independent in 1962 as Hitachi Chemical. In addition, Babcock Hitachi, Hitachi Seiko (precision industry) and Hitachi Kenki (construction machinery) were former outstanding divisions of the parent company.

Also, among the affiliates, Maxell Electric Industry, which specializes in batteries and tapes, became independent as Hitachi Maxell; Nippon Columbia, which was suffering from bad management, was reorganized as a high earning enterprise. Nippon Servo also became an affiliate in 1964 and was rapidly expanded, adding further strength to the Hitachi group.

In addition to the independence of the Hitachi divisions and expansion through affiliation with related companies in the manufacturing field, similar efforts were successful in the field of sales and service.

A background factor for the strong showing of Hitachi's affiliates was of course the clear strategic goal of the parent Hitachi company to strengthen the entire group. In order to realize this strategy, the Hitachi philosophy

was instilled by delegating personnel. In addition, joint seminars were held between the division directors of both the parent company and its subsidiaries to educate them in "Hitachi-ism." Such thorough inculcation of the Hitachi form of management through personnel exchanges and interchange of awareness was extremely effective in evolving group strategy.

As indicated by the thoroughness of independent management, Hitachi policy demanded stringent effort on the part of the independent enterprises themselves. A good example is the "principle of market pricing." Hitachi covers every type of enterprise, and a high percentage of products and parts are procured from within the group.

However, prices are not simply lower because they are procured within Hitachi itself. If the products of other manufacturers are better and cheaper, they are purchased instead. Hitachi is hardnosed in this respect. It is the same not only between the plants within Hitachi but also between Hitachi and its affiliated companies, and among the affiliates themselves. Fierce competition is thus encouraged within the group. Recently, the strategy has changed to put priority on intracompany and intragroup procurement, but any softness in management as a result is strongly cautioned against. These could be the reasons why the large enterprise group, with as many as 531 companies, shows such business strength throughout the group.

Rush of New Software Companies

The formation of an enterprise group centering on the separation and independence of divisions, or the "cellular" type of establishing subsidiaries, is a trait of Hitachi's subsidiary policy. However, there has recently been a new aspect, which is the rush of newly formed software companies.

Also, with the sudden advance toward electronicization, systemization has made rapid progress. In this connection, utilization technology or software has become vital.

Actually, Hitachi has always emphasized systemization in production, and each plant has built up its own software for its products.

In the past, however, various experts were called together from different fields or divisions to create software for a given product or project. The software task force would disband as soon as the project was completed, and a new team would be formed for the next project. In other words, the stockpiling and systemization of software information was lacking, resulting in a failure to utilize the achieved results efficiently.

It was therefore decided to establish a software subsidiary with intensive investment in personnel and development technology. The demand for software has skyrocketed in recent years, and the ability to develop software has become an important weapon in evolving company strategy. Software companies have been established early for atomic energy, thermal power

generation systems, computers, and communications systems. Since 1978, however, the trend has accelerated to establish software subsidiaries for microcomputers, automotive electronics, design-automated systems, industrial robots, measuring instruments/medical machines and instruments, and office automation (OA). At Hitachi, this is called the "software rush."

Today there are 15 subsidiaries, and no other company has established software firms in such an ambitious manner. The total personnel of 7,000 equals the number of employees at the parent company who are engaged in developing software for computers. Sales continue at a double-digit rate of growth.

In addition to the separation and expansion of software divisions as independent subsidiaries, Hitachi is working on large-scale systemization embracing the entire group. In the past, vertical expansion of the separate operational branches was common, but with the recent progress in electronics, horizontal connections between the branches have increased. It is the responsibility of Hitachi's systems division to promote such horizontal linkage.

The systems division has already undertaken a mass control system for environment and transportation. In April, the systems division was instrumental in forming a promotional group for factory automation (FA) by mobilizing all of Hitachi's project divisions and research institutes as well as related groups, and the entire promotional group has set out to cope with FA.

It is the first time such a large-scale group has been assembled--and something that cannot be imitated by other companies. The promotional group is the focus of attention as being indicative of the depth of Hitachi's affiliates.

Hitachi's establishment of subsidiaries will continue apace by separating promising divisions as independent subsidiaries, and it has the merit of facilitating the active shift of personnel. It is one reason why Hitachi does not become a rigid organization despite its huge size.

Furthermore, the personnel sent to the subsidiaries include top quality employees who are full of ambition, and the strong emphasis on achievement fosters management strategy among the affiliated companies. Therein lies the secret of Hitachi's strength as a group. The threat of the Hitachi group exists in the fact that Hitachi is ahead of the other companies in making such moves and promoting them forcefully.

Thoughts on Hitachi's Personnel Strategy; Signs of a Breakdown in "Hitachi Family" Awareness

"Two out of three division directors at Hitachi Ltd are waiting for their heads to fall (to be shipped out to a subsidiary). Personnel administration there is quite bureaucratic. If some in your class are promoted, the rest

are weeded out, and so competition is fierce. And if you go to a subsidiary, the retired former bureaucrats and the "institutional cadre" group are there ahead of you, so you are sandwiched in between them. Instead of facing a second career, you are likely to become a leftover. Hitachi is really a hot spot." (economic reporter)

The foregoing is a typical view indicating that, seen even from the outside, the shift of personnel to the subsidiaries is not based on "sending people out to pasture," but on Hitachi's strict policy concerning its subsidiaries.

Hitachi Ltd has managed and nurtured its subsidiaries under its motto of "Hitachi is one" on the one hand, and under its slogan of "independence" on the other. Let us take another look to clarify Hitachi's strict management policy toward its subsidiaries through shifts in personnel.

At Hitachi, the term "chain companies" ["keiretsu kaisha"] means its "subcompanies" ["ko-kaisha"]--which include 47 "interlocking subcompanies" ["renketsu ko-kaisha"] and 345 "unlinked subcompanies" ["hi-renketsu ko-kaisha"] (as of March 1981) and the "affiliated companies" ["kanren kaisha"] under the parent holding company. The special appellations, unique to Hitachi, are based on the fact that there is no superior-inferior relationship between the parent company and its subsidiaries, but a horizontal relationship; they are all equal members of the group. In other words, the aim is to enhance group awareness in order to strengthen solidarity among the subcompanies and affiliated companies, and to boost morale. The joint seminars held for cadres (division and section chiefs) of the chain subsidiaries and the parent company at the Hitachi General Management Institute is a concrete example.

State of Personnel Transfers

Let us take a look at the transfer of personnel to enterprises listed on the stock exchange, centering on the chain subsidiaries and others.

A total of 212 officials were transferred to 23 chain companies. Among them, 58 officials or about 27 percent, were sent to the "big three" alone--i.e., Hitachi Cable, Hitachi Chemical, and Hitachi Metals.

Fifty-six persons were sent to companies other than chain companies listed on the stock exchange. The two groups, totaling 268 officials, were sent to 40 companies listed on the exchange. It is a personnel network worthy of the mammoth Hitachi. Moreover, only two chain companies--Nakayo Telecommunications and Horiba Ltd--have top officials who are not former Hitachi men. Even in the listed (on the exchange) companies other than chain companies, 9 out of 17 companies, or 50 percent, are managed by former Hitachi officials.

There is another noteworthy point: Hitachi's subsidiaries are known for their excellence, but the subsidiaries of the subsidiaries--that is, the grand offspring of the parent company--have grown to be listed on the exchange, and Hitachi's "human solidarity" is alive among the third-generation

companies. For example, such relations exist between Hitachi Metals and Nippon Kogu (industrial instruments), between Hitachi Cable and Kyosan Electric Wire & Cable, between Hitachi Chemical and Hitachi Condenser, and between Hitachi Chemical and Shin Kobe Electrical Machinery. This is Hitachi Chemical and Shin Kobe Electrical Machinery. This is Hitachi's strongest point and what its competitors fear the most.

Another Hitachi characteristic which emphasized accounting is that Hitachi not only sends top officials as subsidiary presidents to enterprises which have become chain companies through reconstruction or joint ventures, but also sends accounting experts to them. Thes [enterprises] include Tokico, Yagi Antenna, Shin Meiwa Industry, Nippon Servo, Nippon Columbia, Nakayo Telecommunications, Hitachi Maxell, Jidosha Denki Kogyo, etc.

"Office of Chain Companies" Is Feared

The management, promotion and liaison/coordination of chain companies (Hitachi holds 51 percent or more of their outstanding shares and is therefore in a position to take a leading role in their management) are handled by Hitachi Ltd's "office of chain subsidiaries."

In effect, the office of chain subsidiaries singlehandedly manages financial affairs for the various subsidiaries. Of course, as a principle, the office does not have any binding authority over the chain companies, but in reality "it has complete authority. It is a fearsome office which does as it pleases with the subsidiaries." (head of a chain subsidiary)

Therefore, it is difficult to accept the explanation by the Hitachi public relations office that "the office of chain subsidiaries is merely a secretariat type of office."

If the office of chain subsidiaries is chiefly in charge of "auditing" the various chain companies in order to check figures, the Nichibokukai (society of principal chain companies which are major enterprises) and the Nichiwakai (society of small-scale enterprises with greater dependency on the parent company) are probably places where visiting officials from the parent company are received. Of course, both the Nichibokukai and the Nichiwakai were organized for the purpose of promoting friendly relations among the chain subsidiaries, and their stated purpose is "good ventilation." Nonetheless, in view of the custom of presidents of chain subsidiaries "reporting" business results in the presence of Hitachi's president, chairman, and managing director, it seems to be more of a system of "paying homage."

Possible Change in Personnel Pattern of Transfers?

The retirement age for top officials of the chain companies is 70. The youngest presidents of (exchange)-listed companies among the principal chain subsidiaries include President Shinji Tamagawa (57) of Shin Meiwa Industry, and President Shiro Nakanishi of Kokusan Denki (59). The rest are in their sixties.

Furthermore, since the oldest chain subsidiary was established as recently as in 1947, it will be some time before a "veteran" appears. However, it will not be long before a large number of "inside" directors are born.

A major change will then take place in the "Hitachi family" and in the awareness of "Hitachi is one" which has supported the Hitachi group.

When employees hired directly by the chain subsidiaries are promoted to the positions of director and president, the companies nurtured under Hitachi's policy of independence will "learn to walk by themselves." When cadres begin to say, "I don't know anything about Hitachi Ltd," it is questionable whether the present pattern of "Hitachi is one" or "members of the Hitachi group" will continue to apply. Regardless of how superior a chain company employee may be, he is undoubtedly "surplus" and dispensable in Hitachi's eyes. There is no reason why a chain company which can walk on its own feet should ignore its own excellent employees and accept "handout" officials from the parent company. Hitachi, with no place to transfer its surplus officials, will then face the serious problem of an "aging society."

As Hitachi promotes independence for its chain subsidiaries that grow in strength, are listed on the stock exchange, become major enterprises, and begin to train their own excellent staffs, a trend toward "disassociation from Hitachi Ltd" will take place, contrary to Hitachi's wishes.

Hitachi's present pattern of transferring its officials will then change drastically. The effort to consolidate the Hitachi group through a policy of "independence" and to enhance cohesive strength is actually a "two-edged sword" for Hitachi.

Corporate Strategy

Tokyo ZAIKAI TEMBO in Japanese Jun 82 pp 86-109

[Report by Management Journalist Masakazu Iwai]

Japan's Major Enterprise Without a "Top Product"

Japan's No 1 enterprise, one of the world's largest producers of electrical machinery, does not have a "top product" which appeals to the public.

Furthermore, what is known to the public is its management concept, management style, organization, and enterpreneural climate. Generally speaking, it is its own image as an enterprise.

Notwithstanding this, the fact that Hitachi is Japan's representative enterprise was underscored by its listing on the New York Stock Exchange [NYSE] in April 1982. Beginning with its listing in 1972 on West Germany's Frankfurt Exchange, Hitachi stocks have been listed in Luxembourg, Amsterdam, Paris, and Hong Kong.

The NYSE listing is literally a "passport" to becoming an international enterprise.

Hitachi itself had aimed for NYSE listing since its Frankfurt debut, following Sony and Matsushita.

That wish has been fulfilled, but actually it was already a foregone conclusion 2 years ago in June.

The American authority on corporate stocks, Standard and Poor's (S & P) gave Hitachi the same AAA or Triple A rating as it did to Matsushita Electric Corp. The Triple A rating it received from the Moody Company in January last year was a preclimactic victory. Companies which have received a Triple A rating, the highest condition for issuance of corporate stock, are few even in the United States. Except for financial and public works projects, there are more than 20 companies including Bell, Dupont, Exxon, General Electric (GE), General Foods, General Motors (GM), IBM and 3M. Outside of the United States, there are only three companies: ICI, Britain's global chemical producer, and Hitachi and Matsushita of Japan.

Of course, a Triple A rating for a stock issue does not automatically mean it will be listed on the NYSE, but it is practically guaranteed if so desired.

A rating firm conducts detailed investigations concerning various indices such as company regulations, financial makeup, growth potential, and management skills, and the evaluation is severe. Moreover, an AAA rating is given only after "all conditions" are met. The rating is considered acceptable by the NYSE, whose listing qualifications are said to be the toughest in the world.

Unexpected Triple A Rating

Truthfully, however, aside from Matsushita, Hitachi's acceptance was "surprising." At the time, a director of a major Japanese securities firm analyzed the event.

"Hitachi lags begind the American General Electric in heavy electrical machinery, behind the American IBM in computers, and behing Matsushita and others of Japan and RCA of the united States in home electrical appliances. However, Hitachi has semiconductors and computers which even GE does not have. By the same token, IBM and Texas Instruments do not have heavy electrical machinery or home electrical appliances, and Matsushita does not have heavy electrical machinery. In effect, Hitachi's comprehensive technology covers a variety unequaled by other manufacturors of electrical machinery and electronic equipment, which is the reason for its high rating."

Of course that is not all. In terms of products, it is no different than the other two of the "top three general producers of electrical machiney," Toshiba and Mitsubishi Electric.

Is it then because of the content of the consolidated account? In the 1980 closing account, the 47 principal chain subsidiaries in which Hitachi has at least 50 percent of the direct or indirect stock holdings, had

total sales of 3,359.2 billion yen, with total net profits of 129.1 billion yen. It is sixth in sales among the world's producers of electrical machinery and electronics, and fifth in profits.

Those aspects were certainly evaluated highly. However, the stock rating experts were still not convinced.

"In the United States, a company's financial makeup is strongly emphasized. Recently in Japan, also, debt-free management, the financial balance, etc are mentioned, but [Japan] still lags behind in concern about financial charts and tables. In that respect, Matsushita Electric has no problem because it is debt-free and its owner capital ratio versus its public subscription for capital increase in 1980 exceeded 50 percent. However, the Hitachi parent company alone has long-term and short-term debts of under 332 billion yen and consolidated debts of 800 billion yen, while its owner capital ratio is under 28 percent. Therefore, no matter how favorably you may look at it, it rates Class A at best." (analyst of a large Tokyo metropolitan bank)

There is no doubt that its management indices are outstanding among the top three general electrical machinery manufacturers in Japan.

According to the TOYO KEIZAI Statistical Monthly (August 1981), Hitachi was 222nd among all Japanese enterprises, followed by Toshiba (247th) and Mitsubishi Electric (286th). Their owner capital ratios were 25.23 percent, 17.93 percent, and 16.98 percent, respectively. Their sales and current profit ratios were 6.93 percent, 5.46 percent, and 4.24 percent, respectively. Therefore, except for its debts, Hitachi outperformed its two competitors (comparisons made between the parent companies).

Viewed as a single enterprise, however, without reference to industrial categroy or enterprise group, it is only 222nd among 910 companies listed on the stock exchange.

High Potential in Technology and Management

American analysts have given Hitachi a Triple A rating, unexpected by Japanese analysts and reportedly based on its potential--with its potential for both technological growth and its management potential especially outweighing any concern over its safety or financial handicaps.

In fact, when we look at Hitachi, its technological potential and management posture give the impression that nothing is left to be desired.

Of course, it is beyond the layman's ability to evaluate technological potential. Nonetheless, one cannot help being convinced by the following explanation:

"Since its beginning, Hitachi has stressed research and development under the basic concept of respect for independent technology, and it embraces

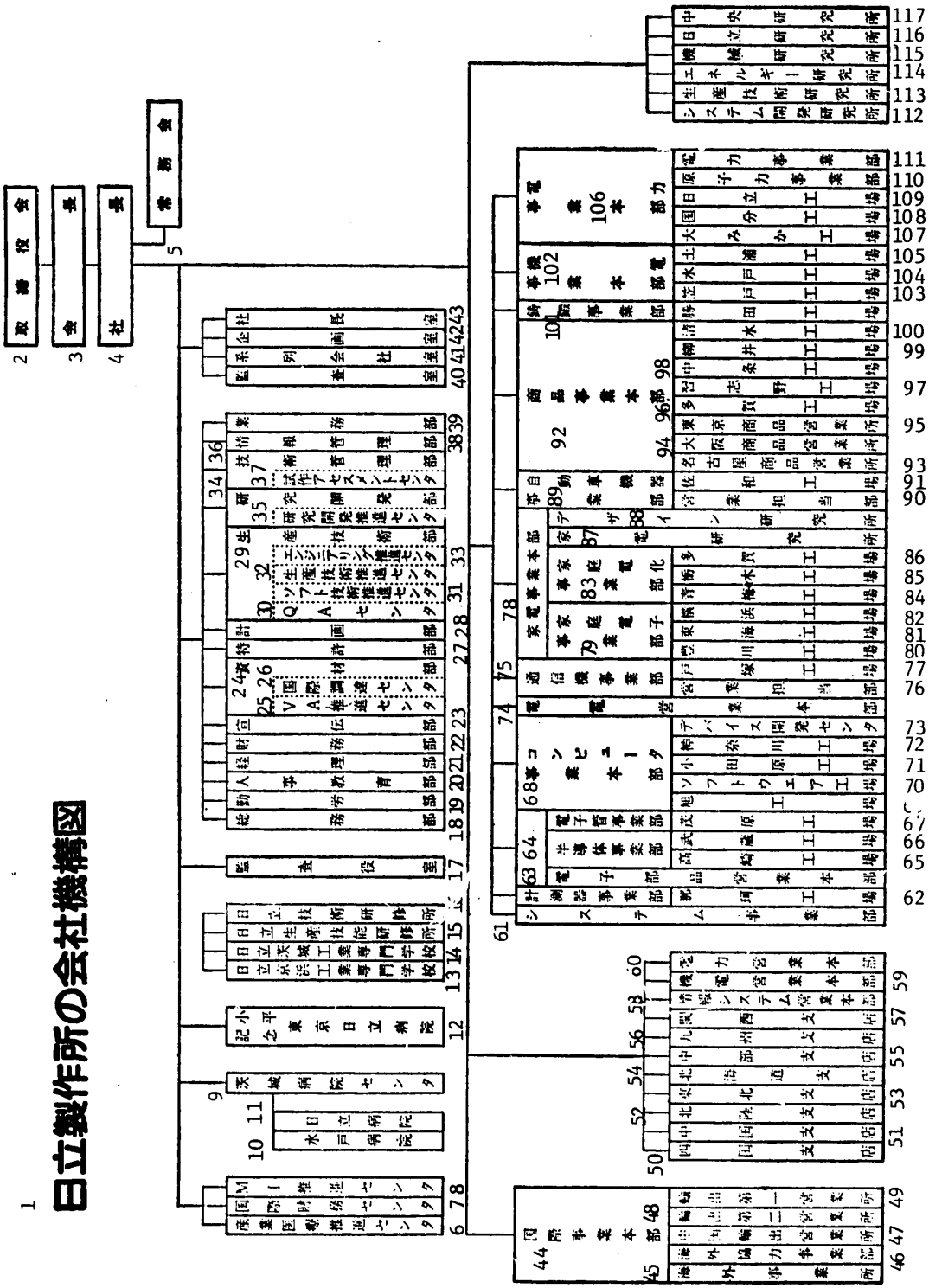
a research and developmenf force which is ranked among the world's top electrical machinery manufacturers.

In addition to the eight research units--Central Research Institute, Hitachi Research Institute, Machine Research Institute, Energy Research Institute, Production Technology Research Institute, Systems Research Institute, Home Appliance Research Institute, and Design Research Institute--we have the development divisions of our various plants conducting R&D that is directly related to their respective products."

A total of 9,000 technicians are engaged in R&D, which is more than 12 percent of the total number of employees. Funds invested in R&D amount to 115.6 billion yen, which is more than 98 percent of the 117.7 billion yen in current profits, and 6 percent of toal annual sales.

Industrial rights at home and abroad total 39,734 items--of which 24,068 items are patent rights, 6,492 are utility model rights, 4,026 are trademark rights, and 5,148 are design rights. With the investment of personnel, money, and materials in technological development as a backdrop, 27 domestic production plants and 25 overseas corporations sell over 20,000 kinds of Hitachi products, for the most part electric power machinery and instruments/heavy electrical machinery, information/communications systems, electronic devices, home electric appliances, industrial machinery/plants, transport machinery and instruments/automotive machines and instruments, etc.

日立製作所の会社機構図



KEY:
1. Organizational Chart of Hitachi Ltd
2. Board of Directors
3. Chairman
4. President
5. Executive Board
6. Industrial Medicine Promotion Center
7. International Finance Center
8. MI Promotion Center
9. Ibaraki Hospital Center
10. Mito Hospital
11. Hitachi Hospital
12. Kodaira Memorial Tokyo Hitachi Hospital
13. Hitachi Keihin Industrial College
14. Hitachi Ibaraki Industrial College
15. Hitachi Production Technology Institute
16. Hitachi Technology Institute
17. Chief auditor's office
18. General Affairs Division
19. Labor Division
20. Personnel and Education Division
21. Accounting Division
22. Finance Division
23. Public Relations Division
24. Materials Division
25. VA Promotion Center
26. International Procurement Center
27. Patent Division
28. Planning Division
29. Production Technology Division
30. Q & A Center
31. Soft Technology Promotion Center
32. Production Technology Promotion Center
33. Engineering Promotion Center
34. R&D Division
35. R&D Promotion Center
36. Technology Control Division
37. Trial Manufacture Assessment Center
38. Information Control Division
39. Business Affairs Division
40. Chief auditor's office
41. Office of chain subsidiaries
42. Planning office
43. Office of the President
44. International Projects headquarters
45. Office of overseas operations
46. Overseas Cooperation Operations division
47. Business office for exports to China
48. Second export business office
49. First export business office
50. Shikoku branch office

51. Chugoku branch office
52. Hokuriku " "
53. Tohoku " "
54. Hokkaido " "
55. Chubu " "
56. Kyushu " "
57. Kansai " "
58. Information Systems Business Headquarters
59. Machinery and Electricity Business Headquarters
60. Electric Power Business Headquarters
61. Systems Operations Division
62. Measurement Instruments Operations Division/Naka plant
63. Electronic components business headquarters
64. Semiconductor Operations Division
65. Takasaki plant
66. Musashi plant
67. Electronic Tube Operations Divisions/Shibehara plant
68. Computer Operations Headquarters
69. Asahi plant
70. Software plant
71. Odawara plant
72. Kanagawa plant
73. Device Development Center
74. Telephone and Telegraph Business Division
75. Communications Equipment Operations Division
76. Business Affairs Division
77. Totsuka plant
78. Home electronics operations headquarters
79. Home Electronics Operations Division
80. Toyokawa plant
81. Tokai plant
82. Yokohama plant
83. Home Electrificaton Operations Division
84. Ome plant
85. Tochigi plant
86. Taga plant
87. Home electronics research institute
88. Design research institute
89. Automotive machine and instrument operations division
90. Business office
91. Sawa plant
92. Commercial Products Operations Headquarters
93. Nagoya products business office
94. Osaka products business office
95. Tokyo products business office
96. Taga plant
97. Narashino plant
98. Chujo plant
99. Yanai plant
100. Shimizu plant
101. Foundry Operations Division/Katsuta plant

102. Machine Electronics Operations Headquarters
103. Kasado plant
104. Mito plant
105. Tsuchiura plant
106. Electric Power Operations Headquarters
107. Omika plant
108. Kokubun plant
109. Hitachi plant
110. Atomic Energy Operations Division
111. Electric Power Operations Division
112. Systems Development and Research Institute
113. Production Technolgoy Research Institute
114. Energy Research Institute
115. Machine Research Institute
116. Hitachi Research Institute
117. Central Research Institute

Stake on "Two E's"

New and advanced technology, new products, and new systems include the following (carried in TOKEI Statistical Monthly, May 1981):

Pocket-size automatic biochemical analyzer, energy-saving refrigerator, automatic water supply unit: Hitachi Hi Pack Ace 20, OR-ON data retrieval system, heat-storing oil-type hot water supplier, energy-saving electric water heater, control unit for hot water supplier and heater with internal microcomputer, latest color diagram indicator terminal, new absorption cooling and heating system, voice alarm system for automobile, super-high-speed computer for scientific and technological uses, world's fastest calculating supersize computer M-280H, new piezo-electric ceramics, energy-saving system for shops and stores, voice-synthesized automatic announcing system for elevators, supersonic microscope, electronic scanning microscope, preventive maintenance system for power-generating facility, spectrophotometer, high-efficiency power-generation electromotor system, high-output carbon dioxide laser, program language version II linear detector element, control technology for undulatory transistor-type electric current, high-output high-efficiency luminous diode, super-precision plane tester/all-purpose lathe, simulation program for the SIMPLAN management plan, and supermicro video camera-mag camera to fit inside a VTR.

This lengthy list gives an indication of the numerous products, technology, and systems made by the general manufacturer.

Actually, merely looking at the list does not reveal the "future potential" or marketability [of the items], but in any case it is certain that they are a "group of future trump cards" developed, announced, and held in readiness by Hitachi.

A second look should indicate that many of the listed items involve the "two E's" which general manufacturers of electrical machinery such as Hitachi, Toshiba, and Mitsubishi emphasize.

Of the two "E's," the first stands for electronics. For a period of 5 years since 1976, Hitachi devoted nearly 50 percent of its total R&D costs of 445.3 billion yen to the electronics field, which includes semiconductors, integrated circuits, computers, and communications equipment. It also diverted 40 percent of its plants and equipment and 63 percent of its key personnel and development specialists. As a result, sales in 1980 grew to 800 billion yen, topping all the other categories.

Additionally, technological transfer of electronics into the areas of home electric appliances and heavy electrical machinery resulted in direct profits.

The second "E" stands for the field of energy as represented by the Nuclear Energy Operations Division, which was organized independently of the Electric Power Operations Division in August 1980. Of course, electric power projects constitute the core of energy, but the mainstream of hydraulic power has shifted to the water-pumping method, while the mainstream of thermal power has moved from oil to LNG and now to atomic power generation. However, the age of the boiling water reactor (BWR), which now holds center stage, is said to be over, and a new-generation BWR is under development as a member of the "GE" group with a very fluid rate of contribution in earnings.

Large Orders and Shipments (1980)
(Procured Products)

Customers	Product/Volume
Kansai Electric Power	600,000 KW thermal power generating plant--complete set
Nippon Steel Corp	Hot strip finish rolling machine and receiver/transformer electric power facility--complete set
Japanese National Railways	38 electric trains, 48 direct current trains, and complete set of products for the Shinkansen ["Bullet train"]
Nippon Telephone & Telegraph	Crossbar switchboard--150,000 circuits; electronic switchboard--364,000 revolutions
High-Energy Physics Research Laboratory	3 sets HITAC M-200H and other systems, complete
Australia	4 boilers for 350,000 KW thermal power generator

Sumitomo Chemical Industry Singapore Plant	120,000-ton, low-density, high-voltage polyethylene plant--complete

Shipped Products

Tohoku Electric Power	600,000 KW thermal power generating plant--complete
Japanese National Railways	141,000 KW combined-cycle power generating plant--complete; integrated control system for transformer station on Tohoku-Joetsu Line--complete
Nippon Telephone & Telegraph	Crossbar switchboard--155,000 circuits; electronic switchboard--336,000 revolutions
Marubeni Corporation	HITAC M-200H and other systems--complete (for accounting/information systems, etc)
Venezuela	1 boiler facility for 400,000 KW thermal power generator
PRC	1 steel ore loading/unloading port facility

Romanticism of Namihei Kodaira, Founder of "Hitachi for Technology"

In any case, it is true that an assessment of Hitachi technology is made easier by boiling it down to the "two E's."

First of all, since its origin as the engineering section set up to repair machinery for the Hitachi Mining Company operated by Fusanosuke Kuhara, Hitachi has met the challenges of independent management and domestic production by using foreign facilities and machinery as models.

There are many episodes concerning the late Namihei Kodaira, founder and first president. One is as follows: In the early days, an order for a large motor was received. At the time, Japan depended almost entirely on imports for that class of motors. Hitachi was promoting independent development, but it had difficulty making motors turn--unlike today, when a motor can easily be switched on. It was therefore grateful for the order, but even Kodaira had no idea whether he could comply with the requested specifications.

After great pain and effort and trial by error, the company finally succeeded in developing and making a motor which worked when the electricity was turned on. Kodaira and his workers were reportedly overcome with emotion and tears.

This is an illustration of the technical level of electrical machinery in those days, and of the spirit of the Hitachi technical team led by Kodaira which struggled for "independent development" despite those conditions. It could also be said to symbolize Hitachi's technical direction, which sought technological development in completely unknown areas, or rather the independent development of existing technology--that is, the development of modification technology.

A woman of low birth could marry into nobility, but many people cannot escape their birth and origin as long as they live.

This is doubly clear in the case of Toshiba, a rival of many years and led by a born contriver, which has produced "original" and sometimes "self-complacent" technology and goods.

Significance of Electric Power Link

Of course, this does not in the least detract from Hitachi's meaning of independent technological development.

The efforts of Kodaira and his workers to successively develop "Hitachi originals" of electrical machinery such as power generators, transformers and distributors, and general machinery such as water wheels, pumps, and lift cranes are certainly praiseworthy.

Also, Hitachi's challenge of foreign facilities and machinery eventually led it to a different approach from Toshiba on the road to diversified management. And yet, unfortunately, "Hitachi for technology" was not popularly known.

One reason was that, in the prewar days, Hitachi did not have a prominent product worthy of being called a home electrical appliance.

It had produced a fan in 1916, a pump for home use in 1918, and an electric refrigerator in 1928, all of which rates Hitachi ahead of Toshiba, but its products seldom appeared on the market.

Secondly, among the two prewar pillars--electrical machinery and general machinery--Hitachi had a machinery plant in Kamedo, Tokyo, but the main plant was in Hitachi, Ibaraki Prefecture, which was rather inconvenient in terms of transportation. Although known to users of machinery and facilities, it was little known to the general public, but this fact apparently did not bother the Hitachi bosses.

Actually, when the Kuhara Mining Company's Hitachi plant became independent in 1920 and was renamed Hitachi Ltd, it lagged far behind Shibaura Ltd (which later merged with Tokyo Electric to form Toshiba) and Mitsubishi Shipbuilding's electrical machinery plant (which later became Mitsubishi Electric Corporation). However, in the late 1930's and early 1940's it racked up the largest sales and profits among the competitors to become

ne top enterprise. Therefore, the "image of a general enterprise "could have been unnecessary.

Such conditions continued after the war.

The Japanese economy, including the electrical machinery industry, was devastated by the war, and it took time for the Hitachi plants, which had lost 80 percent of their facilities and production capacity through repeated air raids and bombardment by offshore battleships, to restore their production facilities and functions.

Many steelmakers produced such home goods as pots and pans and plows. But soon they began to make such consumer items as radios, electric stoves, grain threshers, and marine diesel engines for fishing, thus regaining their status as "manufacturers of electrical machinery and general machinery." Above all, it has been products for professional users which have sustained Hitachi since the war.

"Policy demands" for electric locomotives, freight cars, and coal ore machinery, in line with the economic recovery policy, contributed to the reconstruction of many Japanese enterprises, including Hitachi, and after many ups and downs, power generators, electric motors, transformers, and hydraulic/thermal/nuclear energy power-related projects have become the main pillars for Hitachi.

Lack of Original Products Hurts Hitachi Image

Today the development of power resources--mainly atomic power plants--constitutes a broad social problem.

However, in the age of hydraulic power, coal thermal power, and oil thermal power, it was a problem limited to those involved in electric power enterprises, manufacturers of machinery and equipment, and plant sites. Of course, no one was concerned about the problem except the parties dealing with machinery and equipment used for powerplants and power transmitters, or transformers and distributors. Therefore, "Hitachi" "technology" continued to exist on the "other side of a thick glass window," as far as the general public was concerned.

Not that Hitachi was completely inactive in the home electric appliance field.

After the war, the radio played a key role in opening the age of home electrification. The age came into swing with the TV set, washing machine, and refrigerator.

Hitachi also manufactured radios and eventually TV sets, washing machines, and refrigerators. It presented a similar line of goods on the market as other "home appliance manufacturers." In a nutshell, however, it was not until the first all-transistor color TV sets appeared in 1969 that there was an eye-opening product on the home market for the general user. Moreover,

new Hitachi products were buried in the avalanche of products by rival manufactuers like Sony that had a strong sales network and effective marketing methods. Hitachi was therefore unable to cut a clear image for itself.

It was similar in the case of washing machines and refrigerators, and although a measure of "reputation" was gained, it left only a fleeting impression on the market.

Of course, due to the weakness of Hitachi's home appliance sales network in depending on the order system and professional users, it lagged behind Matsushita Electric and other home appliance manufacturers. Aside from that, however, Hitachi was undeniably overoptimistic regarding products for "amateur users."

Therefore, as a backdrop for the commercialization of transistor radios and transistor TV sets, there is the forgotten (by the public) fact of Hitachi's start and growth in electronic technology, which today shows tremendous progress in semiconductors, integrated circuits, and computers.

Hitachi's True Power

Although there is no room for doubt regarding its earning power and its reputation as a general manufacturer of electrical machinery--especially of the quality and functions of the "technology of Hitachi"--it must be repeatedly stressed that lack of "first-class products" or original products was responsible for Hitachi's being ignored by the general public, as mentioned before.

In that respect, Hitachi today is able to prove its rich technological potential to anyone.

As for heavy electrical machinery represented by nuclear power generation --which is at center stage as far as the energy portion of the "two E's" is concerned--domestic production of the boiling water reactor (BWR) developed by GE has ended. With the decision to develop a new-generation BWA, to import a new converter reactor and a high-speed breeder reactor, as well as the recent decision by main consumer Tokyo Electric Power to import the KWU reactor developed by West Germany, Hitachi has begun joint research with Toshiba and Fuji Electric.

Unable in the past to escape from the shadow of GE, Hitachi is now able with its nuclear power to boast of its challenge of the new theme, "the safety of nuclear power generation."

The same thing could be said of the other "E"--that is, electronic technology.

During the past 2 years, Hitachi has embarked successively on themes concerning the development of new technology based on electronics.

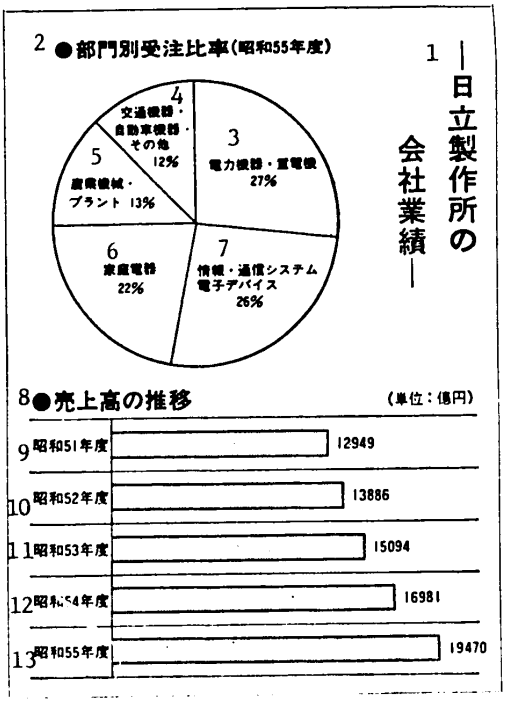
They are medical electronic machinery and equipment (ME), phototechnology, defense technology, and office automation (OA). It is interesting that although some of these themes are definitive, a command order has been issued to "catch up and pass" Toshiba, as if Toshiba were one or two steps ahead in defense, OA, and ME.

In other words, Hitachi's technological ability will be tested by its speed, timeliness, and reach.

Of course, the same principle applies not only to futuristic technological themes, but also to the existing consumer market. Public interest regarding computers, semiconductors, and integrated circuits has heightened, and they are easier to understand. It is not an overstatement to say that global interest is focused on how soon Hitachi will outstrip IBM, Fujitsu, and Nippon Electric in those fields.

Today, the various companies are abreast as far as mass consumer items, including personal computers and microcomputers, are concerned.

We are at the stage where the outcome of the race with readymade home appliances such as home VTRs, TV sets, and washing machines will depend on how electronics can be transferred technologically and its functions expanded. Just as Hitachi developed and commercialized the portable VTR in 1979 and closed the gap, the race could change anytime in this age of "technological reform."



Hitachi's Record of Achievements (chart)

KEY:
1. Hitachi's record of achievements
2. Ratio of orders received by category (1980)
3. Electric power machinery and instruments/heavy electrical machinery-27 percent
4. Transportation machinery and equipment/automotive machinery and equipment/others-12 percent
5. Industrial machinery/plants-13 percent
6. Home electrical appliances-22 percent
7. Information systems/communications systems/electronic devices-26 percent
8. Record of sales (unit: 100 million yen)
9. 1976 - 12,949
10. 1977 - 13,886
11. 1978 - 15,094
12. 1979 - 16,981
13. 1980 - 19,470

Hitachi-Type Management Is Key to "Growth"

Compared to the motto: "Hitachi for technology," "Hitachi-type management" has always been easier to understand. In a word, ever since the company's founding [management] has consisted of "delegation of authority" and complete "independence and self-support." Some refer to it as "vertical management."

As is usual with founders, Namihei Kodaira was reputed to l n with a strong individuality." This is illustrated by an episode in which he reportedly submitted an opinion to the equally individualistic Fusanosuke Kuhara. Although Kuhara rejected his opinion and even threw an ashtray at him, Kodaira refused to bend and persisted in his original idea.

However, it was Kodaira who established the unwritten rule at Hitachi that "top management will render the final judgment after ascertaining the opinions of the entire staff." Of course, in the beginning Kodaira himself assumed the "role of listener."

Such a concept is naturally tied to the delegation of authority and self-support, because each employee must have his own rights and responsibilities so that the entire staff can have its respective opinions. Kodaira's formula of "aggregate knowledge" could be said to have given birth to various terms in describing Hitachi management, such as "bottom-to-top management," "plant system of independent profitability," "intracompany capital system" and "American-type management."

Of course, the independent profitability system for plants stemmed largely from Hitachi's early days, when advance investments were made, amid Fusanosuke Kuhara's suspicious looks, as a plan for progress. Kuhara was a great industrialist and enterpreneur, but he was said to be completely nervous regarding the independent development and domestic production of

electrical machinery begun by Kodaira. And there are many episodes to prove this.

In any case, it has been a "tradition" since [the company's] founding to demand "independent profitabilty" by any "operating entity"--that is, any plant or subsidiary of the Hitachi group.

A Hitachi plant or subsidiary considers it normal to operate under its own individual "profit goals."

Strict Management of Subsidiaries

Some may argue that, plants aside, it is natural for a subsidiary to be self-supporting. We don't know about the future, but until the early 1970's the parent company of many enterprises was quite indulgent and less strict toward its "subcompany." In contrast to such companies, Hitachi's excellent "consolidated accounting" is the result of its strict policy.

Hitachi's independent profitability policy toward its plants is derived from a certain distinctness added to its system of operational divisions.

Hitachi is made up of 14 operational divisions, under operating headquarters, for commercial products, electrical machinery, home appliances, computers and electronics, with each jurisdiction clearly defined. In this sense, it is no different from the systems of operating divisions in general, but each plant constitutes a "company within a company." It was planned that way from the beginning and was further clarified by the start of the "individual capital system" for each plant in 1968, whereby capital assets for the plants and the overall accounting for the group are subdivided into separate accounts for each plant. And as a principle, each capital increase is subdivided in proportion to the original assets of each plant. Like companies in general, capital for the individual plant earns not interest but "dividends." A certain percentage of "dividends" is received. In addition, each plant must share its burden of the management expenses and R&D costs of the parent company, and management control is similar to that of regular enterprises. In effect, it is a prerequisite for each plant to become a "profitable management entity."

That is why it is simplified as "vertical management." Like ordinary enterprises, each plant has its competitors.

No matter who the competitors are, [each plant] must win its race.

To lose means to end up as deficit management. If it does, it must face severe decisions and choices under its own responsibility regarding the lowering of production costs and, prior to that, the problems of what to make and where to sell them.

There is no time to look back and watch the "other companies" within the Hitachi group.

However, it has certainly helped to improve Hitachi's earning power as a "profit center."

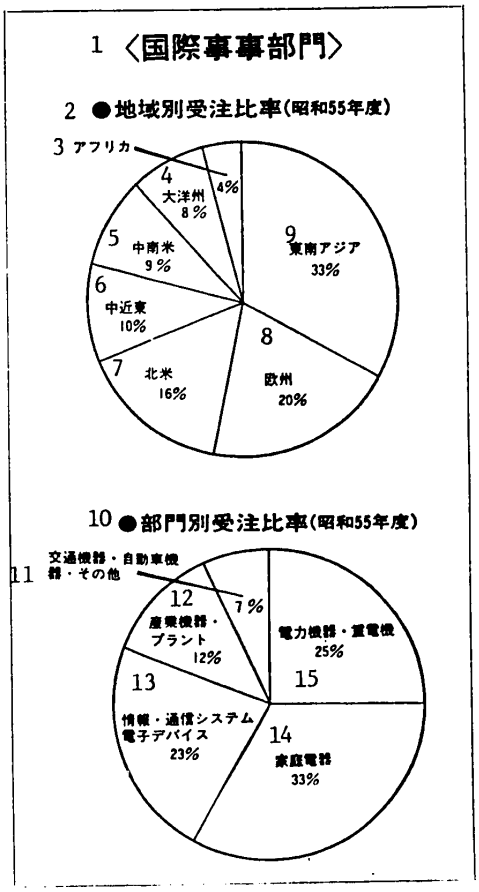
Although Hitachi does not have any top product, the "system of capital assets for each plant" offers an easily understandable explanation as to why it is the No 1 general manufacturer of electrical machinery in Japan.

Another point which should not be overlooked is that, while carrying out the decentralized system of authority, Hitachi is outstanding in its establishment of a unified "vector."

Hitachi is like Matsushita in this respect.

An episode is told where in Kodaira the "listener" collected opinions from every employee and finally rendered a decision which was really his own from the start. This is significant in Hitachi's case.

Kodaira, Chikara Kurata, Kenichiro Komai, Hirokichi Yoshiyama, and Katsushige Mita were all such adroit managers at Hitachi.



KEY:
1. International Operations
2. Ratio of Orders Received, by Region (1980)
3. Africa - 4 percent
4. Australasia - 8 percent
5. Central and South America - 9 percent
6. Middle East - 10 percent
7. North America - 16 percent
8. Europe - 20 percent
9. Southeast Asia - 33 percent
10. Ratio of orders received, by category (1980)
11. Transportation machinery and equipment/automotive machinery and equipment/others - 7 percent
12. Industrial machinery and equipment/plants - 12 percent
13. Information systems/communications systems/electronic devices - 23 percent
14. Home electrical appliances - 33 percent
15. Electric power machinery and equipment/heavy electrical machinery - 25 percent

Up Against "Acid Test" of Internationalization

It is easy to agree with the evaluation of the aforementioned American analyst that a glimpse into Hitachi's technology and human potential more than makes up for its financial handicaps.

In fact, Hitachi has fulfilled its potential and improved its financial charts during the past 10 years.

In March 1971, Hitachi's owner capital ratio was 23.0 percent. Its loan ratio was 45 percent. In March 1975, however, the former rose to 24.3 percent while the latter dropped to 43.1 percent. Furthermore, in March 1980 its owner capital ratio improved to 27.7 percent and its loan ratio was a mere 26 percent, as we mentioned before. This may not sound impressive at any given point, but as a trend it will probably continue to improve rather than decline.

If there is a past, there is a present. One cannot ignore the empirical law that past and present do not guarantee a future. For example, avoiding the great hurdle of politically motivated economic friction in overseas markets is not a problem confined to Hitachi. However, with a weakness in home electric appliances, Hitachi has tended to lag behind its competitors in terms of exports, but it has finally increased its total sales to the 30-percent ratio level. Moreover, its principal battle today involves the semiconductor market at a dimension exceeding that of its previous problem (control over color TV exports to the United States).

Hitachi has already activated a production beachhead in the United States for semiconductors. This was considered an epochal event for Hitachi, which had concentrated in the past on the developing countries for its overseas advancement and was rather negative about establishing plants in advanced countries.

From a different viewpoint, it shows Hitachi's posture concerning semiconductors, which represent the most basic technology and products supporting the "age of mechatronics." However, Japanese semiconductor manufacturers, who foresaw "semiconductors as the target after home electric appliances and cars," have one after another followed Nippon Electric in building plants in the United States. Yet past examples indicate that although such a perception may be valid from the standpoint of "economic theory," it is not valid from the standpoint of "political theory."

Yoke of "Vertical Management"

Just as the Japanese "mechatronics industry," including Hitachi, places importance on semiconductors, it is considered a "strategic industry" in the United States--perhaps even more so.

Actually the semiconductor, which is vitally important to the space industry and military technology, including automobiles and aircraft, could be said to "hold the key to the national security system." Moreover, unlike Japan, it is publicly stressed in America.

It would be a major crisis, not only for Hitachi but for all Japanese manufacturers of semiconductors, if the growth of the semiconductor industry were to be constrained.

Not only would the estimated annual growth during the next decade of 30 percent in volume and some 20 percent in sales be thwarted, but it would unmistakably cast a heavy shadow on technical development.

Moreover, in Hitachi's case, there are other questions. There is the question of how not only the development of semiconductors but also its independent development could change from a posture of catching up with technology to a leading position, and how it could prove its technological potential.

Reportedly the overseas market is pinpointed as the central target regarding the "two E's." For giant Hitachi, with its sales of 3.36 trillion yen through its consolidated accounting system, the 33-percent export rate of its products, including its overseas production, is unsatisfactory. After all, the rate of growth of the GNP at home is stagnant at zero, while a minus growth is anticipated.

Hitachi is to sell 50 percent of their merchandise in the international market and would like to build a multi-national enterprise like GM, IBM, and West Germany's Siemens & Halske, A.G.

"In 1986 our sale will double and our profit will triple," said Hitachi. To achieve this goal, the export market has to be expanded, however, this cannot be done with existing technologies and merchandise.

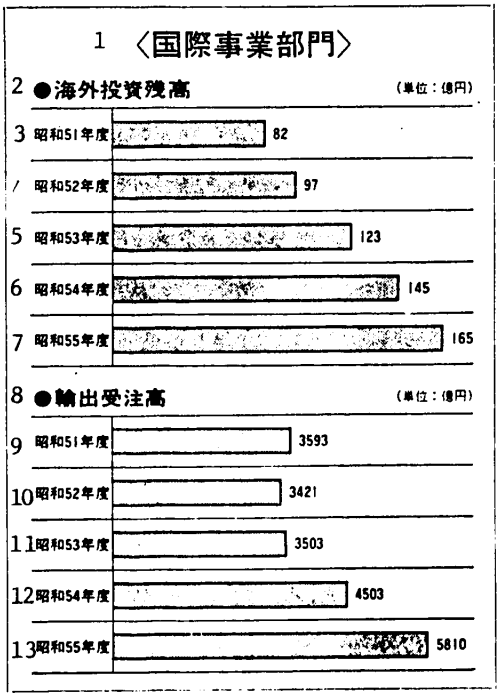
Hitachi says it will combine the individual technological potential of the entire company and work to create new and advanced technology and products accompanied by a stable reputation.

If we use the example of the portable VTR, which made a hit in the VTR market, it is easy to understand Hitachi's claim. In this case, development was handled by the Tokai plant, basic semiconductor technology by the Central Research Institute, the materials by the Hitachi Research Institute, the mechanisms by the Machinery Research Institute, and production technology by the Production Research Institute. Meanwhile, the group enterprises, including Hitachi Maxell, provided special technology, and the Home Electrical Appliance Research Institue consolidated all the research. As a result, it is true that within a short period Hitachi succeeded in moving from development to marketing of the product.

Of course, it is easy to coordinate separate research efforts when there is a prior target such as the VTR. When a completely new, hypothetical product is involved, however, it is doubtful to what extent the plant's profit center, which has been taught to emphasize profits and economic feasibility, should take on the risks of prior investment.

Nevertheless, in order to set down roots by expanding its share of the international market--in this sense the heavy electrical machinery field is actually a pioneering effort--secondary products, as marketed in the past, will not suffice. The only way is to make a breakthrough with premier products and top technology.

Of course, these will probably end up as groundless worries, since "Hitachi management" cannot possibly slip up. Organizational moves and training of personnel reportedly are underway to prepare for internationalization and coordination of technology and products. Meanwhile, attention is being focused on how much change can be made by the Hitachi people, who have become accustomed to a risk-free type of management, when they face the acid test.



KEY: 1. International Operations
2. Overseas Investment (unit: 100 million yen)
3. 1976 - 82
4. 1977 - 97
5. 1978 - 123
6. 1979 - 145
7. 1980 - 165
8. Export Orders
9. 1976 - 3593
10. 1977 - 3421
11. 1978 - 3503
12. 1979 - 4503
13. 1980 - 5810

Overseas Strategy

Tokyo ZAIKAI TEMBO in Japanese Jun 82 pp 110-114

[Report by Yasua Nomura]

14 April 1982: This day will long remain in Hitachi history. It was the day that financial operations for the Hitachi landing on U.S. shores, planned for 3 years, culminated. On this day President Mita, witnessed by Chairman William Batten (phonetic) of the NYSE, President Setsuya Tabuchi of the Nomura Securities Company, and others, issued an order for 1,000 shares of Hitachi ADR's (U.S. trust securities). With this initial transaction, the NYSE--the world's largest exchange--began to sell and buy Hitachi shares.

Of course, Hitachi was not the first Japanese corporation to have its shares listed on the NYSE. Five companies, including Sony and Matsushita, had already been listed, and Hitachi was the sixth. Nonetheless, [listing] with the NYSE was an epoch-making project, and Hitachi spent 3 years for its realization.

It was done because Hitachi perceived the United States as "the largest future market for its products from the standpoint of procuring funds." From the standpoint of its broad range, wealth of capital, perfection as a market, and variety of methods for the procurement of funds, Hitachi's financial experts uniformly stress, "the importance of the U.S. market cannot be overstated."

Hitachi has always emphasized careful preparation and ample understanding among everyone concerned in whatever it has undertaken. For example, regarding foreign exchange policy, not only the offices directly in charge but also general employees involved in exports and overseas projects conduct study sessions on the ABCs of the exchange market, formulate company policy, and discuss measures to cope. It seems that it would merely take time and effort without much effect, but once a start is made everyone concerned would understand better and things would work out smoother.

Cautious Landing Operations

How then did Hitachi's operations for the U.S. landing start? The objective was to obtain a stock rating. In the United States, a rating by Moody or

Standard and Poor's (S&P) is a prerequisite to issuing corporate bonds for the purpose of increasing capital. Of course, it is not at all a legal stipulation, but in many cases there is an unwritten law among institutional investors in America that purchases cannot be made without a rating by the two firms. Therefore, in order to amass a large amount of capital, a precondition is to obtain the highest rating possible. Together with the complicated procedure of the U.S. Securities Exchange Commission (SEC), that is why it is so difficult for Japanese enterprises to procure capital in the U.S. market. Moreover, it is a factor in the Japanese tendency to turn to the less complicated European market for bond issues.

However, since it judged "the U.S. market as the prime target," Hitachi was determined to pass the difficult test. The reason for the importance of the "rating" is that, although it is directly a rating for bond issues on the U.S. market, it is actually used as a reference for any projected advance into the U.S. market, such as joint ventures and technical cooperation, where the rating of the company concerned is questioned.

Of course, everyone knows that Hitachi is one of the super companies in Japan. However, this may not necessarily be true in the United States. Especially the financial ratios are considered most important by the rating organizations--for example, the ratio of owner capital which was 25.2 percent (March 1981) in Hitachi's case.

Undeniably this [figure] lags far behind the 61.6 percent (December 1980) of IBM, the superclass U.S. company, and the 51.5 percent of GM (ditto). Moreover, in the case of Japanese enterprises, the contract exchanged with a bank during a transaction is very important. Whenever a loan from the bank is involved, there is a clause which permits the bank to claim collateral with top priority when necessary. The Moody firm, which is noted for its strictness regarding legal problems, has pointed this out in rating Japanese bonds, stating, "The priority of the creditors is lessened," and it uses this as a reason for lowering their ratings. For example, Matsushita, which has made virtually no loans, was the only Japanese enterprise prior to Hitachi to be granted the highest Triple A rating.

Off To Acquire a "Triple A" Rating

Hitachi first approached S&P for a rating. After obtaining a Triple A rating in July 1980, it next submitted a rating request to S&P's strong rival, Moody. Not only Hitachi's chairman and top executives but also representatives from financial institutions such as the Japan Industrial Bank, the Finance Ministry, and the Bank of Japan joined in persuading Moody that, since the bank contract has never been invoked against any major company, it does not pose any threat to the creditors. Such efforts succeeded, and in January 1981 Moody awarded Hitachi a Triple A rating, enabling it to join the ranks of some 30 companies of the AAA club.

Also, ever since the rating was given to Hitachi, Moody has regarded the signing of bank contracts with Japanese firms in a less negative light. This was a boon to Japanese companies seeking a U.S. rating for purposes of increasing capital.

Thus armed with the Triple A rating, Hitachi proceeded in April to issue 150 million dollars in convertible bonds in the U.S. market. It originally planned to issue 100 million dollars, but due to the rush of foreign buyers into the Japanese stock market and the large volume of subscribers attracted by Hitachi, it was decided at the last minute to increase the bonds as a "hot issue."

The 150-million-dollar issue is the largest amount of convertible bonds ever launched overseas by a Japanese enterprise. Subsequently, the value of the Hitachi bond rose to 947 yen per share with a convertible value of 488 yen, which made investors very happy. In fact, despite the large volume of issue, 34 percent had already been converted to regular stock by the end of February this year.

This advance in Hitachi's operations reached a climax with its full-fledged capital increase (ADR issue) and listing on the NYSE. Hitachi had previously increased its capital with 75 million shares of ADR's in 1963 at a subscription value of 100 yen per share. Therefore, the procured amount was only 7.5 billion yen. This time, however, the value per share was several times higher, and the procurement amount was incomparably larger. The company accordingly took more precautions in issuing the ADR's. Especially after the August 1981 peak, the Japanese stock market went into a decline and falling value of Hitachi's stock called for a difficult decision. Of special concern to Hitachi was the miserable result of competitor Toshiba's public subscription.

Toshiba's Fiasco

In late December 1981, Toshiba issued the unprecedentedly large volume of 200 million shares of stock at 408 yen per share to increase its capital on the domestic market. However, encountering a stagnant market following the "Granville shock," it was forced into large support buying to stabilize the stock just prior to the date of payment (30 September). Its misfortunes have multiplied since 1 October, because the stock has never recovered its original value. For Toshiba, this means that until the stock regains its original value, it will be impossible to issue the next subscription at current market value, and this has taught a lesson to the other companies regarding the difficulty of determining the issue price. Moreover, there is both a debate pro and con among major investors such as life and casualty insurance companies regarding the increase of capital at current market prices.

Research Task Forces Sent Overseas

Witnessing such actual examples, Hitachi dispatched study groups to Europe and America in October 1981 to observe conditions among institutional investors there. Except for a few companies like Sony and Matsushita, Japanese companies do not go directly to the investors and take a poll concerning their interest in their stocks when increasing capital or issuing bonds. Such marketing research is usually entrusted to professional securities firms.

In contrast, Hitachi's perception is that "capital is a product which is sold only after the buyer understands it." It therefore conducts its own research. At the time, Hitachi's stock was 720-730 yen per share, but the response overseas was cool.

"We know Hitachi's stock is good, but the 700-yen level is too high" was the reported response among overseas institutional investors. At the time, the selling spree of superior stocks by foreign investors in Japan underscored the validity of this response. The valid price of Hitachi stock was 600 yen, according to information obtained by a Hitachi executive. On the basis of this information, President Mita of Hitachi instructed a temporary postponement of the ADR issues.

"Go" Sign Is Given

The following February [1982], the stock value, which temporarily regained the level of 737 yen (in January), gave signs of falling to the 600-yen level, approaching the "valid price" indicated by foregin investors. Meanwhile, there is a great demand for capital, with continuing heavy investment in equipment and facilities in growth sectors such as semiconductors and computers. President Mita made the decision to "go" at a subscription price of less than 600 yen.

The Hitachi ADR's were issued at 581 yen, with payment due on 31 March. The steep market decline following the price decision resulted in a temporary drop to under 500 yen a share, and it has continued to show instability, fluctuating around 581 yen. The securities firms handling the capital increase (Morgan Stanley and American Nomura Securities) have experienced big headaches. It was quite different from last year, when the subscription for dollars in convertible securities easily exceeded the expected volume. Also, the actual sales of ADR's in the United States remained at the 40 percent level while 60 percent were sold in Europe and the Middle East, which was "unsatisfactory" to Hitachi. However, the responsible executives at Hitachi are cheerful. They are confident that they have done the best they could.

The basis for this project which took 3 long years was actually laid in 1973 when Hitachi held its first periodic briefing regarding its achievements. Beginning in 1979, company executives have periodically toured the United States, Europe, and Southeast Asia to conduct briefings on its consolidated accounting systems. Because of such groundwork, the issue of ADR's was possible amid severe stagnation of the Japanese stock market. Hitachi has already dispatched a resident vice president in charge of securities to its American subsidiary. It is admittedly lagging behind Sony and Matsushita, which took similar steps 10 years ago, but it is typical of Hitachi that, once it sets its aim, it moves ahead aggressively and makes a positive move even if it may be imitating others.

Has Era of "Hitachi Finance" Arrived?

Hitachi is often referred to as the "Hitachi of technology." Hitachi itself is fond of using this catchprase. However, an enterprise cannot survive on technology alone. Naturally, business management, which gives life to technology, and sound finance are indispensable. In this respect, Hitachi is unhesitatingly rated No 1 by the experts for its sound financial and accounting policies, at least among general manufacturers of electrical machinery. There are no former bankers among Hitachi's management executives. They are all manufacturing specialist. Moreover, the top managers are all engineers. The highest executive to come from the financial field has been the vice president, and the first to reach that position was the present chief auditor, Yagi. Until then, the highest financial expert had been the managing director or the executive director. Even today, the person responsible for finance and accounting is Executive Director Miyauchi. Why is it, then, that the financial and accounting divisions are said to be the most powerful among the general electrical machinery manufacturers who have surplus financial balances (profit receipts and dividends less interest discount fees paid)--that is, higher interest and dividends than interest on loans? (Incidentally, in March 1981, Hitachi's financial balance showed a surplus of 4.8 billion yen, compared to Toshiba's deficit of 5.9 billion yen.)

"After all, everything begins with cost accounting." (Executive Director Miyauchi) Hitachi has completely adopted a profit-by-plant unit system. Sales and costs are calculated by plant, and profitability is figured out. In that sense, the plant superintendent is actually a "president." Not only the plant superintendent but also all the employees working in the plant are evaluated on the basis of periodic profits. They are denied excuses such as "Our products are less profitable" or "We give more emphasis to investment for the future." Therefore, a cost analysis is made for each part and component, each production process, and each item of raw material. It is sometimes said to be carried to such extremes between plants and divisions within the same company that some wonder: "This is really strict cost control. Are we actually employees of the same company?" It has also won for Hitachi the reputation that "Hitachi is weak where several plants are involved."

New Image of Top Management

However, it is certain that such strict cost control was instrumental in creating the "unsinkable ship Hitachi" which is unaffected by the recession. And in Hitachi's case, its managers of finance and accounting never appear on center stage. Nonetheless, their authority within the company, especially in the plant, is quite powerful, and they are superb in their supporting role. Another trait at Hitachi is that, whether an engineer or a manager, he is a seasoned veteran in finance and accounting--and expecially in cost accounting. Even the plant superintendent cannot submit a plan for a new project to the head office without persuading the director of accounting, so he inevitably becomes quite knowledgeable.

In 1980 and 1981, Hitachi managers held long discussions with analysts of Moody and of Standard & Poor's in order to obtain a rating, and the analysts were reportedly amazed at the language ability and in-depth financial knowledge of the Hitachi managers. One cannot become a president at Hitachi on the basis of his technological knowledge along. Partly due to the present recession, the weight of finance and accounting in business management has continued to increase. It is the so-called "era of finance." In view of the value of overseas strategy, it is first necessary to build an "international finance center" and to restudy foreign laws, tax affairs, and accounting. Hitachi's financial affairs are based on such a firm foundation.

This mammoth enterprise, with sales of 2.13 trillion yen and current profits of 137 billion yen (anticipated as of March 1982), intends to double sales and triple profits in FY 86, and it has actively launched an expansion program. What will be the next step by the company, which has made a financial landing on America's shores? It should be cause for worry among its competitors.

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